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**REMARKS**

Claims 1 – 20 are in the application.  
No claims have been allowed.

**I. The Rejections**

(a) Claims 1-2, 4-8, 11-15 and 19 have again been rejected under 35 U.S.C. § 103(a) as being unpatentable over Desai et al (US 6034746) in view of Chen et al. (US 5917830).

(b) Claims 3, 9-10, 16-18 and 20 have again been rejected under 35 U.S.C. § 103(a) as being unpatentable over Desai et al (US 6034746) in view of Chen et al. (US 5917830) and further in view of Sakamoto et al. (US 6026164).

**2. The Response**

**(a) Basis for Rejections Under 35 U.S.C. § 103(a)**

To establish a prima facie case of obviousness, three basic criteria must be met. First, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings of a plurality of references. Finally, there must be a reasonable expectation of success. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on the applicant's own disclosure. *In re Vaack*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

The Federal Circuit Court of Appeals has made it clear that patent examiners cannot rely on their own knowledge as a basis for rejecting patent applications without the citation of specific evidence (references) having a teaching, suggestion or motivation to modify a reference or to combine two or more references. See *In re Lee*, 277 F.3d 1338, 1345 (Fed. Cir. 2002).

In the Patent Office Manual of Patent Examining Procedure (MPEP

§ 2144.03), a detailed analysis is presented of the strictly limited circumstances under which an Examiner may substitute "Official Notice" of a fact unsupported by documentary evidence. Only where "the technical line of reasoning underlying a decision to take such notice ---- is clear and unmistakable" (id.) is it appropriate to rely on "Official Notice".

In a long line of cases, the Federal Circuit has specified that obviousness can be shown only when prior art of record provides a "suggestion or incentive", *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577 (Fed. Cir. 1984), "teaching, suggestion or incentive", *In re Geiger*, 815 F.2d 686, 688 Fed. Cir. 1987), "reason suggestion or motivation", *In re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir. 1992), or "teaching, suggestion or motivation", *In re Raynes*, 7 F.3d 1037, 1039 (Fed. Cir. 1993) to combine existing elements from different sources.

This firm rule, that an Examiner cannot reject claims as obvious unless he can point to specific references suggesting that elements could be combined or modified, has been repeated many times by the Federal Circuit. See *In re Dembiczak*, 175 F.3d 994, 999; *Ruiz v. A. B. Chance Co.*, 234 F. 3d 654,665 (Fed. Cir. 2000); *In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000); *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

It is respectfully submitted that the Examiner is required to find each and every element of the claims in citable references and, most importantly, to find such references which teach, suggest and/or motivate the person of ordinary skill to combine such elements in the manner set forth in the rejected claims. Absent the elements or the showing of a teaching, suggestion or motivation to combine such elements, an obviousness rejection cannot stand.

The examiner bears the burden of establishing a prima facie case of obviousness and "can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988, emphasis added). To support a conclusion that a claimed combination is obvious, either:

(a) the references must expressly or impliedly suggest the claimed combination to one of ordinary skill in the art, or (b) the examiner must present a convincing line of reasoning as to why a person of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Inter. 1985).

(b) The Rejection of claims 1-2, 4-8, 11-15 and 19 Based on Desai in view of Chen

As indicated by the Examiner, Desai describes combining encoded data representing a first (higher resolution or main) video program with encoded data representing a second (lower resolution) video program such as a commercial. However, Desai goes about doing this task in a significantly different way than Applicant's claimed invention. In Desai, (see col. 5, lines 1-4), it is stated:

"To allow for insertion of commercial data, the distributor of a movie provides control information, including a commercial insert file, and one or more data files, along with the movie".

Furthermore, Desai (col. 5, line 23) states:

"When a client (e.g. client 10 in FIG. 1) requests an audio/video asset, a play list is typically constructed by a controller (e.g., controller 16 in FIG. 1). The play list is used to control which data is sent, and in what order the data is sent, from data pump 18 to client 10. The commercial insert file and the data files allow a play list to be constructed such that the movie is played with commercials".

At column 2, lines 39 – 40, Desai states:

"The original audio/video data stream is played until an insert point is reached. The additional data is then played" (emphasis added).

Thus, the "distributor" adds certain "commercial insert" files "along with the movie" so that a single data stream of movie, commercials and one or more data files is made up in Desai by the distributor before the single data

stream is provided from the source to the "client" in sequence.

It should be apparent from the foregoing that, at the point where Desai assembles a movie with a commercials, there are not two video streams present which are combined into a single video stream. Specifically, Desai discloses neither

"simultaneously receiving a first video stream and a second video stream, the latter comprising encoded data representing a second video program of a second display resolution lower than said first display resolution"

(claim 1, emphasis added)

nor

"seamlessly incorporating said first video program encoded data and said second video program encoded data and said identification information into packetized data";

(claim 1, emphasis added).

In applying the claims to Desai, the Examiner ignored the language of the claims which is emphasized in the quotations thereof above.

In the Rejection, the Examiner acknowledges, referring to specific attributes recited in the rejected claims, that "Desai fails to disclose simultaneously receiving and seamlessly incorporating the first and second video streams" (into "packetized data") as required by each of rejected claims 1 – 8 and 19 (or into "a single datastream") as required by each of rejected claims 19 – 20. In fact, Desai clearly states (col. 2, line 39) "The original audio/video data stream is played until an insert point is reached. The additional data is then played.", clearly indicating there are no "first and second video streams" but just a single pre-constructed transmission of data..

It should also be noted that dependent claims 11 – 15, which are dependent on claim 9 (see below), also include "simultaneously" and "seamlessly" since similar language ("simultaneous" and "seamlessly") was also incorporated into independent method claim 9 earlier. Therefore, claims 9 – 18, as well as 19 and 20 are submitted to distinguish over Desai as well. This deficiency is not made up by Chen (see below).

The Examiner seeks to bridge the gap between rejected claim 1 and what is shown in Desai by relying upon Chen et al. Chen describes "a method and apparatus ---- for splicing a secondary packetized data stream, such as a commercial, with a primary packetized data stream, such as a network television program ----- (which method) is particularly suitable for use at a cable system headend." (Chen, col. 2, lines 11 - 17).

The Examiner concluded that "it would have been obvious ----- to take the apparatus disclosed by Desai and add the processing taught by Chen in order to obtain an apparatus that operates more efficiently by reducing the time needed to insert commercials into a stream" (Rejection, bottom of page 4).

However, the Examiner has not demonstrated that there is any suggestion or motivation for a person of ordinary skill to combine anything from these two references. Reducing the time needed to insert commercials into a video stream is not seen to be a stated objective of any of the cited references or of the present invention. Furthermore, the Examiner has not identified "the processing taught by Chen" that could or would be suitable to add to Desai in order to arrive at the presently claimed combination(s).

Chen never mentions that he is dealing with low definition and high definition data streams. At col. 4, line 48, Chen specifically states:

"When the television program is in an MPEG - 2 or similar format, the DAIM (Digital Ad Insertion Module) maintains compliance with the MPEG - 2 protocol."

Later, at col. 8, line 2, Chen states:

"In this case, the data rate of each elementary stream in the insertion stream should be the same as the data rate of the corresponding program in the main stream."

Thus, Chen teaches away from Desai's disclosure of combining higher and lower resolution data segments in a single datastream. Chen describes MPEG-2 (high definition) data for both television program video and inserted advertising video. Chen does not describe combining two streams of video having different (high and low) resolution. There is no motivation or

suggestion for combining Chen with Desai. Based upon what Chen discloses, there is no reason to assume his system would work at all with two streams of video having different resolutions. The required "reasonable expectation of success" is therefore also absent from the proposed combination of Chen and Desai.

Most importantly, the Examiner mis-states what Chen discloses (Rejection, middle of page 4) when he states:

"Chen discloses "simultaneously receiving a second video stream" (Chen: figure 4, wherein the second stream is the insertion stream)".

Chen does not disclose "simultaneously receiving" an insertion stream. Rather Chen describes his system as follows.

At col. 4, line 36, Chen states "The DAIM (Digital Ad Insertion Module) 130 receives the Information (a network television program) as a compressed digital packetized data stream and accesses an inserted stream storage unit" (emphasis and parenthetical words added).

"The storage unit 135 may include audio tapes (DATs), digital video disks (DVDs), compact audio disks(CDs) or other magnetic or optical storage media." (col. 4, lines 41 – 44).

At col. 8, line 34, Chen states "At a time prior to T<sub>in</sub>, (the ad insertion point), --- the ISP 420 parses the input insertion stream to locate the sequence start code. When a packet with a sequence start code is detected in the insertion stream, the ISP puts the address of this packet into a register (not shown). The address is a read address for the insertion stream."

Beginning at line 43, Chen states "As soon as T<sub>in</sub> is detected, -----the ISP 420 sends the first packet of the insertion stream to the syntax processor 470 --" (emphasis added).

This means that the insertion stream is not read from the storage unit 135 until the time corresponding to the ad insertion point (T<sub>in</sub>) is reached in the main program video stream and therefore the insertion (ad) stream is not being "received" "simultaneously" with the program video stream.

Thus, neither Chen nor Desai discloses two simultaneous data streams.

Neither Chen nor Desai discloses or infers any solution to any problem that the other may have. Desai's approach to combining data from two different sources is so substantially different from the system used by Chen that there is simply no practical way to combine these two references as the Examiner has attempted to do. There is no incentive, reason, suggestion or motivation for combining anything from Desai with anything from Chen. The required "reasonable expectation of success" is absent. The necessary requirements under the law regarding combining references to demonstrate "obviousness" have not been met with respect to these two references.

It is respectfully submitted that the Examiner is required to find each and every element of the claims in citable references and, most importantly, to find such references which teach, suggest and/or motivate the person of ordinary skill to combine such elements in the manner set forth in the rejected claims. Absent elements of the claims and any showing of a teaching, suggestion or motivation to combine the references, an obviousness rejection cannot stand.

The rejection of each of these thirteen claims (claims 1 – 2, 4 – 8, 11 – 15 and 19) based on Desai in view of Chen should therefore be withdrawn.

With regard to claim 2, the Examiner has, for the first time, taken the position "that it is well known within the MPEG environment to employ a buffer with sufficient video data to match the switching points (Official Notice).".

Although the File History shows that the Examiner updated the prior art search before issuing the current Office Action, no art was cited in support of this new position (see quote above regarding "Official Notice") taken with respect to claim 2. Furthermore, It is respectfully submitted that the apparatus recited in claim 2 is not "well known" and is not proper subject matter for a rejection based on "Official Notice" (see MPEP § 2144.03(C)). Claim 2 refers to "a buffer which holds and outputs sufficient video data to match the time for switching said first and second video streams" (the interval of time needed to switch from one stream to the other), which does not relate in any way to the discrete times

referred to by the Examiner at which "switching points" occur in the video signal.

An appropriate basis has not been established for "Official Notice" of the allegedly "well – known" facts relied on for the rejection of claim 2 (see MPEP § 2144.03). In addition, the cited well – known facts are not relevant to the language of claim 2 which refers to a time interval (see Fig. 2C of the current application).

Reconsideration and withdrawal of the Examiner's reliance on "Official Notice", as well as of this inappropriate rejection of claim 2, are respectfully requested.

(c) The rejection of claims 3, 9-10, 16-18 and 20 based on Desai in view of Chen and further in view of Sakamoto

The third reference, Sakamoto et al., is relied on against claims 3 and 10 on the basis that Sakamoto discloses "upconverting the decoded second resolution data" (Rejection, page 5).

It should be noted that Sakamoto does not disclose any of the features of the present claims pointed out above in distinguishing this invention over Desai and/or Chen. It should also be noted that Sakamoto is concerned with significantly different arrangements for transmitting and decoding a plurality of entire encrypted datastreams for Pay TV, which is not relevant to the presently claimed invention.

In the citation of Sakamoto, the Examiner notes that reference "teaches that it is difficult to effect scrambling without changing the code length (Sakamoto, col. 2, lines 1-3)". This statement is totally unrelated to the presently claimed invention and relates only to the fact that Sakamoto is concerned with "a communication processing system --- which performs a scrambling process on digital television signals and broadcast (sic) them, and more particularly to pay broadcasting techniques" (Sakamoto, col. 1, lines 16-19).

Sakamoto describes his system beginning at col. 7, line 65, as one in which "low quality layer data S2 and high quality layer data S3 are encrypted and then transmitted, the images cannot be viewed unless not only the layer



decoding unit 134 but also the decrypting units 133a and 133b are provided on the reception apparatus side". As part of his pay TV encryption scheme, Sakamoto uses an "HDTV signal which undergoes a 1/2 down sampling process at a down sampling circuit 221 and is sent to an SDTV (Standard Definition TV) compression layer encoder 23" (col. 8, line 50).

Thereafter, the video signal subjected to the compression process at the SDTV encoder 23 is supplied to the HDTV encoder 22 (see col. 9, lines 5-8). The SDTV compressed signal is subjected to a twice up sampling process at an up sampling circuit 222.

This sequence of, first, down sampling an HDTV signal to produce a low quality (actually corrupted and almost unviewable) signal that may be previewed by a pay-TV non-subscriber, and then up sampling the low quality signal to use it in processing the low quality signal for "previewing", has no relationship whatsoever to the presently claimed invention (or to either of the other two cited references). There is only one program stream in Sakamoto. There are no "first video program" and "second video program".

The Examiner's conclusion that Sakamoto taught "upconverting to obtain an apparatus that operates more efficiently by being able to scramble the data and keep the code length constant", if correct, is without meaning in connection with the presently claimed invention. The rejected claims have nothing to do with scrambling data or keeping code length constant. Furthermore, the statement in quotes immediately above is not contained in Sakamoto and is therefore not part of the "prior art".

It should be noted that Sakamoto is only concerned with different levels of resolution of a single video transmission (image sequence), not with two simultaneously transmitted datastreams comprising different image sequences transmitted at different resolutions which are then seamlessly combined. There is no suggestion, motivation or teaching in Sakamoto which would lead anyone to combine that reference with either Chen or Desai. No "reasonable expectation of success" has been demonstrated for any useful purpose in somehow combining the very different arrangements of Desai, Chen and Sakamoto.

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The action does not make out a prima facie case of obviousness with respect to any of the rejected claims.

There is clearly no objective teaching in the cited references that would lead an individual of ordinary skill to somehow combine Desai and Chen with Sakamoto to arrive at Applicant's claimed combinations. Under the law applied in obviousness rejections, the Examiner's rejection should be withdrawn (In re Fine, supra).

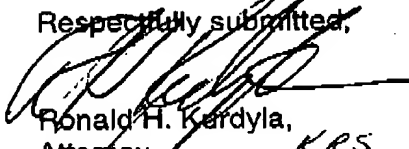
It is respectfully requested that the rejection of claims based on the combination of Desai in view of Chen and further in view of Sakamoto be reconsidered and withdrawn.

### 3. Conclusion

Independent claims 1, 9 and 19 each include distinguishing features as pointed out above which are not found in the cited references or any combination of those references. Claims 2, 11, 18 and 19 further clarify a distinguishing feature of the invention relating to a particular characteristic of a buffer which is not found in any of the cited references and is not appropriate for rejection on the basis of "Official Notice".

In view of the foregoing Remarks, reconsideration and withdrawal of all of the rejections and allowance of all pending claims 1 – 20 are respectfully requested.

Respectfully submitted,

  
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